

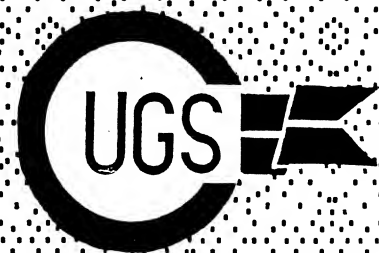
E.U.G.S.

MONITOR



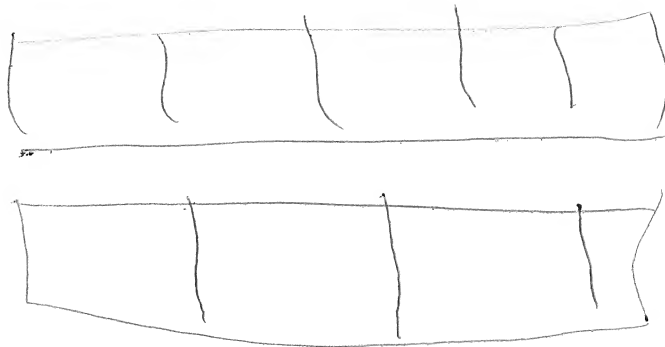
NOVEMBER '87

Vol.2 no.3



1400

LABEL
ASSEMBLER



OBLIGATORY STUFF

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THE MONITOR is published monthly by the COMMODORE USERS' GROUP OF SASKATCHEWAN (UGS), Regina, Sask., Canada. UGS meetings are held at 7 pm on the first Wednesday of every month (unless otherwise notified) in the North-West Leisure Centre, at the corner of Rochdale Boulevard and Arnason Street.

Anyone interested in computing, especially on the C64, 128 or 64C, is welcome to attend any meeting. Out of town members are welcome, but may be charged a small mailing fee for newsletters. Members are welcome to submit public domain software for inclusion in the UGS DISK LIBRARY. These programs are made available to members who purchase the magazines. Any member of is entitled to purchase DISKS from our public domain library for a nominal fee. Some programs are 'freeware', some are from computer magazines, or the public domain. Individual members are responsible for deleting any program that he/she is not entitled to by law (you must be the owner of the magazine in which a particular program was printed). To the best of our knowledge, all such programs are identified in their basic listings. Please inform us otherwise.

UGS is a non-profit organization comprising of C64, 64C, C128, and 128D users interested in sharing ideas, programs, knowledge, problems and their solutions with each of its members. The more members that participate, the better the variety of benefits. If you have a problem, inform our president. If you have an idea, inform our president or process it and give it to our editor. If you have a program you wrote, received, or keyed in from a magazine, give it to our librarian. There just does not have to be one member in our club that cannot participate, no matter how little you may think it is. Give yourself a push, you'll be surprised to find how easy and fulfilling it can be.

IN THIS ISSUE:

NOVEMBER NOTES - Maze mumbles!
MEETING PLACE - Date, Time, Place, Agenda
NEVER AGAIN! (O yah?) - Well, not 'til next time
EDITORIAL - Part II of why and what
SIR RICHARD'S BASIC - Thinking of filing?
DISK-ETIQUETTE - EARL'S LAST COLUMN!!!
WOULD YOU BELIEVE? - A disk "helpful hint".
ALL KIDDING ASIDEWAYS - A new review!

MEETING PLACE:

AGENDA:

PRESIDENT'S REPORT - Richard Maze
ELECTION OF OFFICERS FOR 1987-88
SPEAKING AT RANDOM! - Barry Bircher

*****coffee****visiting****disk-picking*****

UGS LIBRARY DEMO - EARL BROWN

EDITORIAL

Election time - a time for renewal and healthy change. Election time in a club such as ours should be looked upon as a "rebirth", a renewal of direction and purpose. It's an opportunity for some of those who share in this club to move forward, for a time, to the front. We don't need computer wizards at the helm, just interested computer hobbyists willing to take a little time to organize activities to advance the understanding of our members about their club and their hobby. Too often the suggestion that one "stand for office" returns cries of "too busy", or simply expressed lack of self-confidence from (too many) members too shy to get involved. I've paraphrased an excerpt from an educational trade journal below, just to make a point about participation. Read on, then consider not just "what this club can do for you, but what can YOU do for your club!" (apologies to JFK)

Xvxn though my typxwritxr is an old modxl, it works quitx wxll, xxcxpt for onx of thx kxys. I wishxd many timxs that it workxd pxrfxctly. It is trux that thxrx arx forty-onx kxys that function wxll enough, but just onx kxy not working makxs all thx diffxrxncx. Somxtimxs it sxmxs to mx that an organization is somxwhat likx my typxwritxr ... not all of thx pxoplx arx working propxrlx.

You might say to yoursxlf, "Wxll, I am only onx pxrson, I won't makx or brxak any club!" But you DO makx a diffxrxncx, bxcausx any group, to bx xffxctivx, nxxds thx activx participation of xvxy mxmbxr. So thx nxxt timx you think you arx only onx pxrson and that your xfforts arx not nxxdxd, rxmxmbxr my typxwritxr and say to yoursxlf "I am a KXY PXRSON in our club, and I am nxxdxd vxry much, xspxcially now, to do my part in making this club strong and xffxctivx!" You must rxalizx that it is only by bxing visibly activx and supporting of thx things wx try to accomplish that this group can function FULLY xffxctivxly, providing guidancx and lxadxrshp for anothe rxnxxration of hobby computxrists.



IGNORAMUS:

A person unacquainted with certain kinds of knowledge familiar to yourself, and having certain other kinds that you know **NOTHING** about!

MAZE'S

NOVEMBER NOTES

This month is election month for the CUGS executive for 1988. I would like to take this opportunity to thank the members who are "retiring" from the executive. Your assistance this past year has made my job very easy. I greatly appreciate the support and help you've given me through this year. Although you're not continuing on the executive, I hope you will still take an active part in CUGS. I also welcome club members who have joined the executive. Your new ideas and involvement in the executive will help our computer club to grow.

The other day I had occasion to look through some back issues of my computer magazines. Yes, I have not yet thrown out a computer magazine, although a lot of them have interesting articles about computers long since gone to that great "computer heaven" (cashed in their chips, ya might say - Ed. note!). I thought I would share with you a few 'didjacks' about the Commodore 64.

DIDJACKNOW that the first mention of the C64 in Compute! occurred in the July 1982 issue in a chart of Commodore's new "third dimension" computers. This chart was intended as a brief overview of the Chicago Consumer Electronics show and National Computer Conference in Houston. Other computers in the same chart were the BX256, B128, P series and the MAX. The intended release date for the C64 was to July/August.

DIDJACKNOW that in the August and September issues of Compute!, features editor, Tom Halfhill, gave a two-part feature on the C64 which was the result of a half day he spent at Commodore headquarters working with it. Most of his article dealt with sprite and sound capabilities. Some software & hardware support he mentioned (available by Jan. 1983) - 1541 disk drive, direct-connect plug-in modem, PET Emulator (running up to 90% of popular PET software), languages - assembler, LOGO, BASIC compiler, a word processor modelled after WordPro, a whole family of business software with the prefix Easy - EasyCalc, EasyGraph etc..

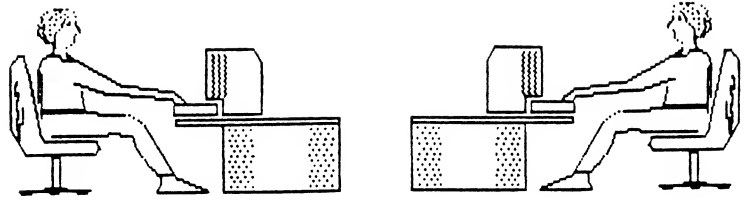
DIDJACKNOW that the October 1982 issue of Compute! contained a memory map of the C64 by (guess who) - Jim Butterfield. Also, this issue contained the information that Commodore had slowed the production of the MAX, moving instead to a dramatic increase in the production of the VIC. Also, about this time, Texas Instruments dropped the price of the TI-99/4A by \$100 to \$199.

DIDJACKNOW that in the editor's notes of Compute! (November 1982), reference was made to the fact that Commodore shipped 12,000 64's in the first two weeks of full release of the product. I quote, "Now, their primary problem, ..., is building them fast enough to meet demand." Where have I heard that before? or since? Also in this issue - a sprite generator program for the C64 and an ad for the C64 for \$575.

DIDJACKNOW that in the December 1982 issue of Compute! was another program - Commodore 64 Sprite Editor. This issue also contained the first ads for C64 programs. Most of these ads were for remakes of existing VIC or PET software and were to be found in the small 1/4 page ad sections. The only full page ad for a C64 program was for PETSPEED. This was also a reworking of a previous ad for the PET. In the editor's notes there is further talk about Commodore production difficulties and a hint at the introduction of the IBM PC.

DIDJACKNOW the January 1983 issue announced of the startup of Compute!'s Gazette for Commodore with emphasis on the VIC-20 and the C64.

Now, six years later, wither go we (and the C64)?



DISK-ETIQUETTE

by EARL BROWN

(* ED. NOTE - against the better judgment of ~~thousands~~ ~~hundreds~~ the editor - EARL insists on renaming his column SCRATCH AND SAVE - which sounds suspiciously like a description of an itchy millionaire - but, I'm just the editor, what do I know, who am I to object... so, the name changes as of next issue.)

I apologize. It appears I missed the listing for CUGS 128 pgms #03 last month. It's included this month along with COMMUNICATIONS #3 and GENERAL #10. Please note: all members who obtained CUGS GAZETTE #23 disk - one of the programs (perhaps 'UNSCRAMBLE') was (how should I say it), scrambled. Part of a 'CUGS DATA' seq file inadvertently got appended to it and practically all of the program is missing. I'll be happy to re-save the program in question for you. If there are any programs on our disks that are messed up in any way, please, PLEASE, let me know. The program will be corrected or re-placed. Even if you don't wish to have your copy replaced, please let me know anyway. We would really like all programs and disk failures to be resolved.

Now that the 1581 Disk Drive is available, a third choice is becoming available for that second drive. Granted, it could be a first choice for the +4, V20, 64, or 128 computer system, but you'd be limited to running only some few programs available for in this format machines, and copied non-dos-protected software. As more 1581 drives are sold, software companies will gradually supply software in both formats. Eventually, they will probably discard the 5.25 inch size in favour of the "more-for-your-money" (considerably more storage) 3.5 inch format. Of course, this is not going to happen overnight.

What are the advantages to owning one now? If you do a lot of word processing or databasing and require more storage room than your 1571 can provide, the answer is obvious. Storage on the 1581 is almost twice that of the 1571. (Remember, the 1571 storage is more than double that of the 1541.)

The 1581 also:

- runs at 2 MHz
- has track cache buffer for faster disk access
- nine instead of five job buffers allows more files to be open at once
- supports sub-directories so related files can be stored in separated areas
- uses super-side sectors - relative files can be as large as the disk

Finally, the price? About the same as a 1571. Cheaper than the 1571 in the U.S.A.

SIR RICHARD'S BASIC

by Richard Maze

This article is the start of an ambitious project to examine the various file types that can be used and the programming involved in using each type. In this first article of the series, I will examine the different file types and indicate how these are stored on the diskette. In later articles, I will examine the programming required to use these different files within a computer program. I will use BASIC 2 in all examples. Those of you who have BASIC 4 or BASIC 7 should realize that there are some "shortcuts" available. BASIC 2 will work, however, on all upgrades of BASIC. Hopefully, you will find that it is not that difficult to write programs to access disk files.

There are four different types of files that can be stored on diskettes - PRoGram files, SEQuential data files, RELative data files and USer (sometimes called 'random access') files.

Let's examine how data is stored on a diskette. A diskette stores data on a number of concentric TRACKS. The 1541 (and 4040) disk drive permits normal access to 35 tracks. Tracks are numbered starting with 1 on the outside of the diskette and proceeding inward to track 35. Each track is divided into SECTORS (also called BLOCKS). A sector will hold 256 bytes (characters). Because the tracks are of unequal length, there are varying numbers of sectors per track with more sectors on the outer tracks and fewer on the inner tracks. Track 18 is used to keep a record of the diskette contents (directory) and controls access to all files on the diskette.

The directory track has one sector (track 18 sector 0) reserved for diskette HEADER information. This is the first sector accessed on a read. It contains 2 bytes which tell the track (18) and sector (1) of the first directory sector (block). The next 16 bytes hold the disk name, 2 bytes contain the disk id and 2 more contain the disk version and format. 140 bytes are used to hold the BAM (block availability map) which contains information as to what blocks are available on the disk. The remainder are in use.

Each directory block contains the following: the first 2 bytes contain the location of the next directory block; the remaining 254 bytes is subdivided into 8 subdivisions of 30 bytes each with 2 bytes separating each subdivision. Each of these subdivisions contains information about 1 file on the diskette. The information is stored as follows: 1 byte contains the file type; 2 bytes contain a pointer to the track and sector of the first storage location of the file; 16 bytes are reserved for the name of the file; 2 other bytes contain the number of blocks used to store the file. The remainder are either unused or used to control the operation of RELative files.

Remember the 4 basic disk file types?:

PRoGram File: - stores a BASIC or Assembly language program. This file is normally used to store computer programs. The storage simply involves filling up the 254 bytes of a block (first 2 are used to link to the next block) and then going on to fill up successive blocks until all the program has been saved. A diskette directory will display PRG to indicate a program file. This is marked in a directory on the diskette as hex \$82 (decimal 130).

SEQuential Files: In these files, data items are stored one after the other in a long list. Data items are stored in a manner similar to program files. Because the data may be of different lengths, it must be accessed from the start each time it is used. SEQ in a diskette directory indicates sequential files. They are marked on the diskette by hex \$81 (decimal 129).

RELative Data Files: Each record of these is the same length. As a result, data can be accessed individually, a much faster process than reading sequential data. However, there is a greater use of disk storage associated with relative data files. A directory listing will show REL to indicate a relative data file (marked by hex \$84 decimal 132).

Random Access Files: These are also called USer files because they are controlled completely within a program. Individual bytes of data are placed or retrieved directly from a particular sector by program statements. Random access files are the most difficult to set up and use. On a directory listing this file type may be indicated by USR (marked on directory entry as hex \$83 decimal 131). In some cases these files may not have a directory entry at all as information can be put directly on a chosen track and sector. Such a diskette must be used carefully because the information could be destroyed by storing additional files on the diskette.

Next month I will start the examination of each file type and the statements and programming procedures necessary for preparing files using each of the different types.

ALL KIDDING A-SIDEWAYS

SIDEWAYS - Timeworks, Inc.
- \$60.00
- C64 or C128 computers
- Printer required

This program will rotate printed material 90 degrees on a page of paper. This is particularly useful for spreadsheets that are very wide and would involve taping two or more pages together printing them normally.

The program consists of a disk (C64 version on front, C128 version on back of disk), a well-written manual and an installation guide.

To use Sideways, you first have to 'install' it for your printer and printer interface. A special installation program, which is menu driven is loaded the first time you use Sideways to make it compatible with your system. You can first set up Sideways to be compatible with your printer. There are 12 different printers listed plus an Epson compatible selection which allows the inclusion of many printers that are not listed. After selecting your printer, you can select your interface. Most common interfaces are listed along with a 'other interface' which allows you to specify your system. The installation guide contains specific

information that you may have to follow (like setting certain DIP switches) before running Sideways. The installation program also allows setting the number of data bits at 7 or 8. This could be important depending on the type of printer you have. You can also select device number 5 for your printer if you have changed your printer's device number. All of your selected options are saved and become part of the main Sideways program. You do not have to change these unless you change the printer or interface from what you have selected.

Once Sideways is loaded into the computer, the Sideways disk can be removed and the disk containing the data to be printed can be inserted. Sideways gives one main screen display with a secondary help screen of commands available. Values are given for page size, margins, etc. that are most common. These can be easily changed by moving the cursor to the value you want and typing in the change. When a file is selected, it is loaded off your data disk and printing begins.

Sideways is compatible with the following spreadsheet programs: Better Working Spreadsheet, Calc Now, Cal-Kit, Creative Calc, Microsoft Multiplan, Practicalcalc, Swiftcalc, Syncalc, Trio. It will also work with any C64 or 128 spreadsheet program that can create text file information (ASCII) on a disk.

A major part of the manual is devoted to troubleshooting and specific instructions for using Sideways with a particular spreadsheet program. This is excellently written and should help solve almost any problem that can occur. A very important part of this section is telling what parameters to use when saving a file so that the file will be compatible with what Sideways can print.

I used Sideways with a spreadsheet made on Multiplan. In one case, the spreadsheet took 3 pages to print normally which resulted in a lot of careful lining up and taping pages together. Using Sideways, I was able to print the entire spreadsheet in 1 1/2 pages of condensed type with everything intact. The program does take more time because a special file had to be created with Multiplan and then Sideways loaded and this file accessed. The printing is slower than normal on a Gemini 10X printer because Sideways prints each line from left to right and there is a slight pause between each line of print.

If you do a lot of work with big spreadsheets, then, Sideways may be a program that you may want to examine in more detail. It does permit making much neater and easier to follow printouts.

UPLIFTING LABELS

DISK LABEL REMOVAL TIP
Gary Senesac
Reprinted from:
Aurora Area Apple Core News

Ever reformat an old disk that contained programs or data that you no longer wanted? What did you do about the old label that had been stuck on the disk for the last two or three years? Did it peel off nice and clean or did it tear into a zillion little pieces that make the disk jacket look like a survivor of the holocaust? Or did you give up and just paste a new label over the old one?

Find a hair dryer and blow warm air over the label for a few seconds. This softens the adhesive on the label and makes it easier to peel off in one piece. Lift up a corner and blow more warm air on the back side of the label if needed to keep it peeling off in one piece. Length of time to blow will vary depending on the heat range of your dryer and age of the label. If you melt your disk, forget who told you this!

COMMUNICATIONS3 XC
CUGS LOADER
CUGS DATA

FSTERM BOOT.C
FSTERM.D
DT2-BOOT
DT2-1
DT2-2
DT2-3
TECH FONT
DARK TERM.DOC
XMOBUF 7.4
XMOBUF.DOC
XMODEM 64 (V5.0)
XCHSET
XMODEMV1.12
XMOD12
EAGLETM2.TML

GENERAL 10 MJ
CUGS LOADER
CUGS DATA

QUIZ MASTER GEN
STUDENT QUIZ
LOTTO WEST
LOTTO 6/49
CONIFER GUIDE.C
FACTORS.C
STORY WRITER.C
SUBJECT SHOOT.C
MATHQUIZ
TICTACARITH.C
FUNCT MACHINE.C
CONVERSIONS.C
MULT.LIN.CORR
LINKED LISTS 1
LINKED LISTS 2
LINKED LISTS 3
DRINK & DRIVE.C
ALPHADOT.C
MULT QUIZ.C
MILEAGE.Z

CUGS 128 PGMS 03

DOS SHELL BOOT
DOS SHELL.6656
POWERPLAY128 CK
GAZETTE128 CK
MLX128 GAZ.08/86
MAG ENTRY 128
AHOY BUG CHECK
RUN ML V2.0
DIR.+ 64/128

BOB'S LABEL
DICE 64/128
EASY DATA 128
JIFFY JOTTER
JJ INSTR
SUBJECT.FILE

AUTO MENU 64
AHOY CHECK LIST
RUN CHECKLIST
MLX
MLX INSTR
ALPHA DIRECTORY

DISK MASTER
C64 AUTOBOOT
64 SPEED UP
HI-RES WRITER
ADD CAT10
NEW COMBINATIONS
TURBODISK 64
1571 ERROR EXAM
CARS 128
AMIGA BEACHBALL
.BEACHBALL
SPIRALIZER
ARCHETYPE
GULP COPY
DISK EDITOR
DOS WEDGE/128
WEDGE.6656
1812 OVERTURE
RAMTEST/128
FAST 128
128 CHAR STATMNT
128 DISKDOCTOR
BUG REP II/128

NEW DISK
LIBRARY ITEMS

NEXT C.U.G.S.
CLUB MEETING:
Wednesday
DECEMBER



(Note date!)